1. Record Nr. UNINA9910484306303321 Foundations of Software Science and Computation Structures: 19th **Titolo** International Conference, FOSSACS 2016, Held as Part of the European Joint Conferences on Theory and Practice of Software, ETAPS 2016, Eindhoven, The Netherlands, April 2-8, 2016, Proceedings / / edited by Bart Jacobs, Christof Löding Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, Pubbl/distr/stampa , 2016 3-662-49630-5 **ISBN** Edizione [1st ed. 2016.] Descrizione fisica 1 online resource (XI, 550 p. 78 illus.) Theoretical Computer Science and General Issues, , 2512-2029 ; ; 9634 Collana Disciplina 004 Soggetti Computer science Machine theory Compilers (Computer programs) Software engineering Computer Science Logic and Foundations of Programming Formal Languages and Automata Theory Compilers and Interpreters Software Engineering Theory of Computation Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Types -- Comprehensive parametric polymorphism: categorical models Nota di contenuto and type theory -- Guarded Dependent Type Theory with Coinductive Types -- Dependent Types and Fibred Computational Effects -- Game Semantics for Bounded Polymorphism -- Recursion and Fixed-Points Join Inverse Categories as Models of Reversible Recursion -- A Coalgebraic View of Bar Recursion and Bar Induction -- A New Foundation for Finitary Corecursion -- Fixed-point elimination in the Intuitionistic Propositional Calculus -- Verification and Program Analysis. A Theory of Monitors -- Contextual approximation and higher-order procedures -- A Theory of Slicing for Probabilistic Control

Flow Graphs -- Verification of parameterized communicating automata

via split-width -- Automata, Logic, Games - Robust Equilibria in Mean-Payoff Games -- Quantifier Alternation for Infinite Words.-Synchronizing automata over nested words -- On Freeze LTL with Ordered Attributes -- Regular transformations of data words through origin information -- Probabilistic and Timed Systems - Trace Refinement in Labelled Markov Decision Processes -- Qualitative Analysis of VASS-Induced MDPs -- Metric Temporal Logic with Counting -- Distributed Synthesis in Continuous Time -- Proof Theory and Lambda Calculus Unary Resolution: Characterizing Ptime --Focused and Synthetic Nested Sequents -- Strong Normalizability as a Finiteness Structure via the Taylor Expansion of lambda-terms --Reasoning about call-by-need by means of types -- Algorithms for Infinite Systems Coverability Trees for Petri Nets with Unordered Data -- Shortest paths in one-counter systems -- The Invariance Problem for Matrix Semigroups -- Order-Sorted Rewriting and Congruence Closure -- Monads -- Towards a formal theory of graded monads --Profinite Monads, Profinite Equations, and Reiterman's Theorem.

Sommario/riassunto

This book constitutes the proceedings of the 19th International Conference on Foundations of Software Science and Computation Structures, FOSSACS 2016, which took place in Eindhoven, The Netherlands, in April 2016, held as Part of the European Joint Conferences on Theory and Practice of Software, ETAPS 2016. The 31 full papers presented in this volume were carefully reviewed and selected from 85 submissions. They were organized in topical sections named: types; recursion and fixed-points; verification and program analysis; automata, logic, games; probabilistic and timed systems; proof theory and lambda calculus; algorithms for infinite systems; and monads.